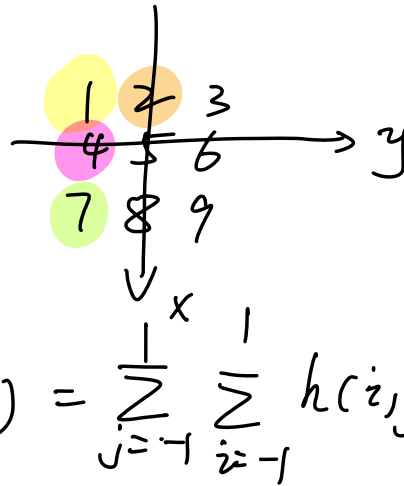
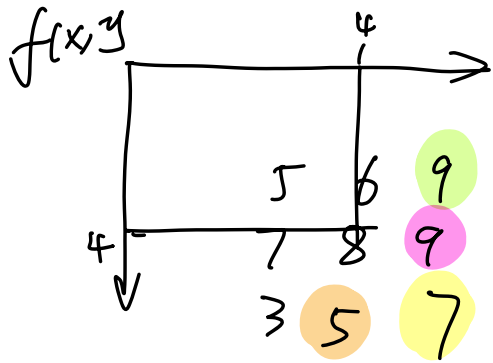


Example 2.2.5 impulse response



$$g(4, 4) = f(x, y) * h(x, y) = \sum_{j=-1}^1 \sum_{i=-1}^1 h(i, j) f(x-i, y-j)$$

$$= h(-1, -1) f(4+1, 4+1) + h(0, -1) f(4+0, 4+1) \\ + h(1, -1) f(4+1, 4+1) + \dots$$

$$= 1 \times 7 + 4 \times 9 + 7 \times 9 + 2 \times 5 + 5 \times 8 + 8 \times 6 \\ + 3 \times 3 + 6 \times 7 + 9 \times 5$$

$$= 300$$